

STRUCTURE AND METHOD FOR FORMING A CAPACITIVELY COUPLED CHIP-TO-
CHIP SIGNALING INTERFACE

ABSTRACT OF THE DISCLOSURE

A system and method for providing capacitively-coupled signaling in a system-in-package (SiP) device is disclosed. In one embodiment, the system includes a first semiconductor device and an opposing second semiconductor device spaced apart from the first device, a dielectric layer interposed between the first device and the second device, a first conductive pad positioned in the first device, and a second conductive pad positioned in the second device that capacitively communicate signals from the second device to the first device. In another embodiment, a method of forming a SiP device includes forming a first pad on a surface of a first semiconductor device, forming a second pad on a surface of a second semiconductor device, and interposing a dielectric layer between the first semiconductor device and the second semiconductor device that separates the first conductive signal pad and the second conductive signal pad.